



# ***USCG MARINE SAFETY CENTER BULLETIN***

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## **Engine Room Vents as Downflooding Points**

**BULLETIN #01-99**

This bulletin clarifies the Coast Guard's policy of excluding engine room vents as downflooding points when performing intact stability calculations.

The Coast Guard allows designers to exclude potential downflooding points from their intact stability calculations if the opening is fitted with a closure device that can be made weathertight during periods of inclement weather. Engine room vents are excluded as downflooding points if they are fitted with a weathertight closure device and there is an alternative means to adequately ventilate the engine room thus allowing the vessel to operate normally regardless of weather.

Opening a vessel's watertight doors to draw supply air into the engine room is not an acceptable alternative means of ventilation since it would compromise the watertight integrity of the main transverse watertight bulkheads (MTWB's). Title 46 CFR 170.055 defines a MTWB as a bulkhead that must be maintained watertight in order to satisfy the damage stability and subdivision requirements of Subchapter S. As explicitly stated in the vessel's stability letter, the only time a watertight door in a watertight bulkhead may be opened is when being used by personnel transiting under safe conditions. A vessel operating with these doors open, regardless of the weather conditions, would be doing so in clear violation of its stability letter and the regulations, and would be compromising the survivability of the vessel after damage. Although closing the engine room vents improves the intact stability of the vessel, such gains in safety are lost when made at the expense of the damaged stability of the vessel.

Designers wishing to exclude engine room vents as downflooding points for intact stability calculations must include details of the alternative means of ventilation with their plan submission.

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